

## 1. Which AWS services can host virtual servers?

1. **AWS CloudWatch**
2. **AWS S3**
3. **AWS EBS**
4. **AWS EC2**

Answers:

4

Amazon Elastic Compute Cloud forms a central part of Amazons cloud-computing platform, Amazon Web Services, by allowing users to rent virtual computers on which to run their own computer applications. Checkout <https://aws.amazon.com/ec2/> for more information on EC2.

*1: is wrong because AWS CloudWatch is used for monitoring and managing virtual servers.*

*2: is wrong because S3 (Simple Storage Service) is used to store files.*

*3: is wrong because EBS (Elastic Block Storage) is used for block storage. N.b. EBS is often used to host a virtual server.*

*4: is correct because EC2 (Elastic Cloud Compute) is used to run virtual machines.*

**2. Your company has given you the brief of designing system with various interconnected microservices. Which AWS product would you use to promote loose coupling between them?**

1. **AWS IAM**
2. **AWS SQS**
3. **AWS Bean Stalk**
4. **AWS CloudTrail**

Answers:

2

Amazon Simple Queue Service is one of the oldest services provided by AWS. It is a fully managed message queuing service that can be used to decouple services. For more information checkout <https://aws.amazon.com/sqs/>

1: is wrong because AWS IAM is used for user management and role access.

2: is correct because SQS (Simple Queue Service) is used to send messages between discrete components.

3: is wrong because Beanstalk is used for developers to host programs with minimal setup.

4: is wrong because CloudTrail is used for auditing, compliance and governance of your AWS account.

**3. Which service would potentially improve the upload speed for files pushed to S3 over the internet?**

1. **AWS Transfer Accelerator**
2. **AWS Faster Upload Service**
3. **AWS Snowball**
4. **AWS EBS**

Answers:

**1**

Amazon Transfer Accelerator allows users to upload files to edge locations geographically close to their location. Those same files are then sent to the destination S3 bucket over Amazon's high-speed link.

1: is correct, see the above answer.

2: is wrong this service does not exist in AWS

3: is wrong because snowball is used to send files to S3 offline.

*4: is wrong because EBS is used to store databases and operating systems.*

**4. What service would you use if I wanted to host a relational database on AWS but let Amazon manage the operating system?**

1. **AWS RDS**
2. **AWS EC2**
3. **AWS RedShift**
4. **AWS DynamoDB**

Answers:

**1**

Amazon RDS (Relational Database Service) is a service Amazon provides to host and manage relational databases. They support many of the popular database choices including Oracle, MySQL, MSSQL and Aurora. This service manages the underlying hardware and the operating systems for the DBs.

*1: is correct because AWS RDS is an Amazon hosted database provider.*

*2: is wrong because EC2 (Elastic Cloud Compute) is used to run virtual machines.*

*3: is wrong because RedShift is used as a data warehouse for analytics.*

*4: is wrong because DynamoDB is a NoSQL database solution.*

**5. If you wanted to archive data for the long term and don't need to access it frequently which of these services would you use?**

1. **AWS DynamoDB**
2. **AWS EBS**
3. **AWS Glacier**
4. **AWS S3 Infrequently Accessed**

Answers:

3

Amazon Glacier is a storage solution for archiving data that doesn't require frequent access. The costs for storing data on Glacier are very low, making it a suitable solution for long term data archival. Retrieval of data can take several hours.

1: is wrong because DynamoDB is a NoSQL database solution.

2: is wrong because EBS (Elastic Block Storage) is used for block storage. N.b. EBS is often used to host a virtual server.

3: is correct AWS Glacier is suitable for long term data archival with slow access times.

4: is wrong, this is tricky because S3 Infrequently Accessed is a good solution for storing data at low cost, however when required the data can be accessed rapidly using this service.

**6. What is the shared responsibility modal in relation to AWS and its users?**

1. **AWS are responsible for the maintenance of the user's data**
2. **The client is responsible for hardware maintenance and upgrades**
3. **AWS and their clients share the responsibility between them.**
4. **AWS is responsible for identify access management**

Answers:

3

The shared responsibility model states that the stack ownership is split between AWS and their customers. While AWS is responsible for the global infrastructure, compute, storage and networking. The customers are responsible for data protection, encryption, platforms and identity access. For more information visit [What is the Shared responsibility model?](#)

1: is wrong this is the responsibility of the customer

2: is wrong because AWS is responsible for this

3: is the correct surmised definition of the shared responsibility model.

4: is wrong because the customer is expected to maintain this.

7. Your company wants to host some servers for a short continual period of 4 months, which instance type would be most appropriate for this?

1. **On demand instances**
2. **Spot instances**
3. **Partial Upfront costs**
4. **No Upfront costs**

Answers:

**1**

There are different plans available when using Elastic Cloud Compute. Depending on how often and how frequent you require your hosts compute resource to be you can choose an appropriate plan. [Checkout the pricing definition for more info.](#)

On Demand instance in this case is the most appropriate.

1: is correct because of the short amount of time the instance is required for.

2: is wrong because spot instances are not suitable because they are not continual

3: is wrong because this applies to plans apply for between 1 – 3 years

4: is wrong again because it's for plans between 1 – 3 years.

8. What service would you use if I wanted to host a relational database on AWS but control as much of the DB's hosting as possible?

1. **AWS RDS**
2. **AWS EC2**

3. *AWS RedShift*
4. *AWS DynamoDB*

Answers:

2

Amazon RDS (Relational Database Service) is a service Amazon provides to host and manage relational databases. They support many of the popular database choices including Oracle, MySQL, MSSQL and Aurora. This service manages the underlying hardware and the operating systems for the dBs'

1: is wrong because AWS RDS is an Amazon hosted database provider.

2: is correct because EC2 (Elastic Cloud Compute) can host a Virtual Machine which the client can install a database server on.

3: is wrong because RedShift is used as a data warehouse for analytics.

4: is wrong because DynamoDB is a NoSQL database solution.

**9. If you wanted to further secure your login process beyond username and password what would you use?**

1. *An automated phone call service*
2. *Multi Factor Authentication*
3. *Additional passwords*
4. *On site eye scan*

Answers:

2

MFA (Multi Factor Authentication) allows for there to be secondary step when authenticating a user's credentials. Currently one solution available to amazon customers is to provide a secondary randomly generated unique access key every time they log in.

1: is wrong because this service is not provided by AWS

2: is correct because of the answer paragraph above.

3: is wrong because additional passwords are not a feature of AWS IAM

4: is wrong because this service does not exist.

**10. If you wanted to share video on demand with users across the world, what service would be appropriate to stream that content?**

1. **AWS SQS**
2. **Lambda**
3. **Glacier**
4. **CloudFront**

Answers:

**4**

CloudFront is a service that distributes your content around the AWS networks edge locations. This facilitates lower latency when delivering that content to customers.

1: is wrong because this service is a message bus

2: is wrong because this service is a cloud functions solution.

3: is wrong because glacier is used to store long term archival data

4: is correct.

**11. Let's say you have 2 AWS accounts, 1 for production and 1 for development. How would you view the billing for both these accounts as one single bill?**

1. **AWS Bill Clash**
2. **Consolidated Billing**
3. **Joined Billing**
4. **Multi Account Management (MAM)**

Answers:

2

Consolidated billing is part of Amazon Organisations. It allows users to pay in a single invoice for multiple accounts.

1: is wrong because this service does not exist

2: is correct because this is a feature of Amazon Organisations.

3: is wrong because this service does not exist

4: is wrong because this service does not exist

**12. Which service is well suited for developers wishing to deploy their Java, .Net, Docker, Python & Node.js code to the cloud with minimal setup time?**

1. **AWS RDS**
2. **AWS EC2 Elastic Cloud Compute**
3. **AWS Elastic Bean Stalk**
4. **AWS DynamoDB**

Answers:

3

AWS Elastic Bean Stalk lets developers quickly deploy their code to the cloud with minimal fuss. This solution is designed to scale as demand grows.

1: is wrong because AWS RDS is an Amazon hosted database provider.



2: is wrong because EC2 (Elastic Cloud Compute) can host a Virtual Machine which the client can install a database server on.

3: is correct Bean Stalk takes out much of the configuration required to deploy an application.

4: is wrong because DynamoDB is a NoSQL database solution.

**13. Your company wants to deploy a photo sharing application; what service is best suited for storing static content such as photos?**

1. **AWS RDS**
2. **AWS S3**
3. **AWS EBS**
4. **AWS DynamoDB**

Answers:

2

AWS S3 is ideally suited for storing photos and other static content. Storage costs are low and the content can be accessed on mass with scalability. The content also has high resilience since it is replicated across 3 separate data centres.

1: is wrong because AWS RDS is an Amazon hosted database provider.

2: is correct, see answer paragraph above

3: is wrong Bean Stalk deploys applications

4: is wrong because DynamoDB is a NoSQL database solution.

**14. Using Elastic cloud compute, which service will let you launch a preconfigured instance for a specific use case?**

1. **Amazon Machine Images**

2. **AWS EBS Volumes**
3. **AWS Linux**
4. **AWS S3**

Answers:

**1**

Amazon Machine Images are preconfigured EC2 instances. They provide various solutions via the AMI Market place. For instance, a WordPress AMI is available to shorten the time it takes to deploy a WordPress instance.

*1: is correct, see the answer paragraph above*

*2: is wrong because EBS volumes are used to run operating systems and databases.*

*3: is wrong because AWS Linux is an example of an AMI*

*4: is wrong because S3 is a static file storage solution.*

**15. Which of the answers below refer to a different geographic location?**

1. **Regions**
2. **Data Centres**
3. **Availability Zone**
4. **Edge Location**

Answers:

**1**

AWS is split up into multiple geographic regions. They are called Regions. EU West 2 for instance is a region located in Europe.

*1: is correct, see the answer paragraph above*

2: is wrong because data centres can be located next to one another.

3: is wrong because there are no guarantee availability zones are geographically separate

4: is wrong because there are no guarantee availability zones are geographically separate

**16. What AWS service could you use to help prevent DOS attacks on your production system?**

1. **AWS Shield**
2. **IAM**
3. **Multi Factor Authentication**
4. **AWS CloudTrail**

Answers:

**1**

AWS Shield is a service specifically designed to protect against denial of service attacks DOS. It is used in collaboration with Route53 and CloudFront to mitigate DOS attacks.

1: is correct, see the answer paragraph above

2: is wrong because IAM is user management

3: is wrong multi factor authentication is related to IAM

4: is wrong because cloud trail tracks API usage.

**17. If you wanted to save time when deploying a complex set of services and make the process of deploying those services repeatable?**

1. **AWS Cloud Formation**
2. **Elastic Bean Stalk**
3. **EC2**

#### 4. Shared Responsibility Model

Answers:

1

Cloud Formation lets architects and system administrators programmatically create and provision AWS services. They can be torn down and rebuilt simply by running the script.

1: is correct, see the answer paragraph above

2: is wrong Bean Stalk takes out much of the configuration required to deploy an application.

3: is wrong because EC2 (Elastic Cloud Compute) can host a Virtual Machine which the client can install a database server on.

4: is wrong because this is a concept not a service

18. Let's say your company wants to run a NoSQL database with as little maintenance as possible?

1. AWS RDS
2. AWS DynamoDB
3. EC2 hosted NoSQL database
4. S3

Answers:

2

DynamoDB is a hosted NoSQL database created and managed by AWS. It is a key value document styled NoSQL. For more information check out: [AWS DynamoDB](#)

1: is wrong because RDS (relational database service) is for Relational databases only.

2: is correct, see the paragraph above

3: is wrong because EC2 (Elastic Cloud Compute) can host a Virtual Machine which the client can install a database server on. However, the client would have to maintain the VM.

4: is wrong because S3 is a file storage solution.

**19. What product would you use to elegantly scale resources based on the demand at any one time?**

1. **AWS Trusted Advisor**
2. **AWS Auto Scaling**
3. **EC2**
4. **Elastic Load Balancer**

Answers:

2

Auto Scaling lets you define when and how a service should increase load based on various conditions. Such as CPU load or Ram usage.

1: is wrong this service is unrelated to scaling.

2: is correct, see the paragraph above

3: is wrong because EC2 (Elastic Cloud Compute) hosts Virtual Machines.

4: ELB distributes traffic among your nodes, however it does not scale the resources themselves.

**20. In the shared responsibility model, which responsibilities fall into the customers domain? choose 2 answers.**

1. **IAM credentials**

2. *Client-side data encryption*
3. *AWS encryption keys*
4. *Edge Locations*
5. *Global infrastructure*

Answers:

**1 & 2**

In the shared responsibility model, the customer is in charge of the IAM credentials i.e. defining user roles and creating user profiles. In addition to encrypting data on their own hardware before uploading it to AWS.

1: is correct, see the paragraph above

2: is correct, see the paragraph above

3: is wrong because AWS managed encryption keys are handled by AWS.

4: is wrong because Edge locations are an AWS service managed by AWS.

E: is wrong because the customer is not responsible for managing AWS hardware.

**21. What service would you use to register and configure domain names DNS (Domain Name Service)?**

1. *AWS Route53*
2. *AWS CloudTrail*
3. *RedShift*
4. *Light Sail*

Answers:

**1**

Route53 is Amazons domain name registration and configuration service. From this service you can purchase domains directly from amazon and then configure them for services i.e. website front ends, API or email servers.

*1: is correct, see the paragraph above*

*2: is wrong because Cloud Trail is an auditing service*

*3: is wrong because Red Shift is a data ware house solution*

*4: is wrong because Light Sail is used for launching preconfigured services with little to no setup.*

## **22. Which statement is true about the general pricing policy for AWS services?**

- 1. There are usually no upfront charges and you pay only for what you use.**
- 2. Upfront charges are common**
- 3. You have to settle your bill annually**
- 4. Prices for services are uniform regardless of the Region you use them in.**

Answers:

**1**

Amazon will only charge you for the services that you use and will require no upfront payments. This makes budgeting for your usage more manageable and fairer.

*1: is correct, see the paragraph above*

*2: is wrong because it contradicts the correct answer.*

*3: is wrong because you pay monthly and only for what resources you have used.*

*4: is wrong because prices change depending on the region and the service.*

### 23. What AWS service is compliant with MySQL?

1. **AWS DynamoDB**
2. **AWS Aurora**
3. **AWS RDS**
4. **AWS EC2**

Answers:

2

AWS Aurora is a MySQL compliant relational database that is according to Amazon 5 times faster than MySQL. For more information see: [AWS Aurora FAQ](#).

1: is wrong because DynamoDB is a NoSQL database solution.

2: is correct, see the paragraph above.

3: is wrong because AWS RDS is an Amazon hosted database provider.

4: is wrong because EC2 (Elastic Cloud Compute) hosts Virtual Machines.

### 24. What AWS service allows you to run functions without the need to host them on a virtual machine?

1. **AWS Lambda**
2. **AWS S3**
3. **AWS RedShift**
4. **AWS EC2**

Answers:

1

AWS Aurora is a MySQL compliant relational database that is according to Amazon 5 times faster than MySQL. For more information see: [AWS Aurora FAQ](#).



1: is correct, see the paragraph above.

2: is wrong because DynamoDB is a NoSQL database solution.

3: is wrong because AWS RedShift is a data warehousing solution.

4: is wrong because EC2 (Elastic Cloud Compute) hosts Virtual Machines.

**25. What AWS service could you use to form a permanent link between your on premise data centre and AWS that isn't dependant on the internet?**

1. **AWS Snow Ball**
2. **AWS NATS**
3. **AWS VPC**
4. **AWS Direct Connect**

Answers:

4

AWS Direct Connect forms a physical link between your on-premise servers and AWS itself. For more information checkout the [AWS Direct Connect FAQ](#).

1: is wrong, because Snow Ball is used for transferring files off line without a direct connection.

2: is wrong because NATs will not solve this issue.

3: is wrong because AWS VPC requires an internet connection.

4: is correct, see the paragraph above.